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STATISTICAL BULLETIN

METROPOLITAN LIFE INSURANCE COMPANY

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Families on Relief and the Birth Rate

IT HAS been suggested to the Editor that the facts presented in our recent article (June 1935) "Better Times and the Birth Rate" are capable of another interpretation than that offered at the time. In our article we stated: "We believe that the reversal of the trend for both marriages and births is the direct result of an upward turn in the economic tide. Better times have made it possible for thousands of young men and women to consummate marriages which the depression had forced them to postpone. And thousands of married couples have been enabled, through better times, to fulfill a fundamental obligation to society and themselves, namely, to bear and rear children."

The increase in the birth rate that was recorded in 1934, it is now suggested, may not be related at all to any increase in income of the self-supporting portion of the people, but rather, on the contrary, may be attributable to increased dependency on relief. We are glad to present the alternative point of view for the benefit of our readers.

According to the alternative view, it is pointed out that the birth rate is well known to vary inversely with the income class of the family, and that the highest birth rates are commonly found among the economically least favored classes. Also, while not so well demonstrated, it is almost certain, that families on relief have a higher birth rate than non-relief families. In support of this latter statement the result of at least two careful studies are cited.

The first study (1) included a considerable sample of urban wage-earners' families in the period 1929 to 1932. Birth rates per thousand married women of ages 15 to 44, adjusted for differences in age distribution, were computed for samples of the population of four cities, namely, Baltimore, Cleveland, New York and Syracuse. On this basis a birth rate of 210 per thousand was found in families on relief, and of only 137 per thousand in families not on relief. In this same survey the authors studied the birth rate in relation to change in income and employment status. They found that families "poor" in 1929, who were still "poor" in 1932 had a birth rate of 178 per 1,000 married women of ages 15 to 44 during the period. Families whose economic status fell from "moderate" to

(1) Sydenstricker, Edgar, and Perrott, G. St. J.: Sickness, Unemployment and Differential Fertility. The Milbank Memorial Fund Quarterly Bulletin, April 1934, Vol. XII, No. 2, pp. 126–133.

"poor" had a birth rate of 157 per 1,000, and those whose status fell from "comfortable" to "poor" a rate of 133 per 1,000. Families which were "moderate" in economic status in both years had a birth rate of 113 per 1,000, while those who were "comfortable" throughout the period had a birth rate of 107. The families classified as "comfortable" were those having an annual income of $2,000 or more; as "moderate", an income between $1,200 and $2,000; while the "poor" families had incomes below $1,200.

In a summary the authors state: "The findings in the surveyed group of families show that the birth rate was highest during the depression in families which were without employment or on part-time work in 1932. Furthermore, if the birth rate is studied in connection with income changes during the depression, it appears that high fertility was associated with inability to succeed in the severe competition for jobs brought about by the depression. Low social status, unemployment, and low income in 1932 went hand in hand with a high illness rate and increased malnutrition among children. It was in these same groups of families that a high birth rate prevailed."

In another study (2) an attempt was made to answer specifically the question: "Do families, after going on relief, conceive more children than comparable families not on relief?" Data were collected in Milwaukee and the suburbs of Shorewood, Wauwatosa and West Allis. The author states: "Our data show that there were 35 percent more confinements between October 1, 1930 and December 31, 1933 among 5,520 families on public relief than among a control group of non-relief families. However, this is apparently an understatement of the difference. Calculating confinement rates per 1,000 months of exposure to the risk of pregnancy, we find that the relief group has an excess of 43 percent."

If the situation thus observed in small groups is paralleled in the population at large, we should find our greatest increase in birth rates to have occurred in States with the highest proportion of families on relief. It has been difficult to find a measure of the extent of relief comparable for all States. We have taken as a crude measure the payments made by the Federal government to each State, in excess of the payments by the State to the Federal government.

We have divided the States into two groups, the first including the 30 States which paid less to the Federal government in taxes, etc., than they received in Federal assistance; and the second including the 18 States, and the District of Columbia, whose payments in taxes exceeded the benefits received from the Federal government. The difference in birth rates for the two groups is interesting. In the first group the birth rate in 1934 was 19.2 per 1,000 *total* population, while

(2) Stouffer, Samuel A., Fertility of Families on Relief, American Statistical Association Quarterly, No. 187, Vol. XXIX, Sept. 1934, pp. 295–300.

in the second group it was only 15.8 per 1,000.

If we examine the relationship further we find that among the 30 States which benefited from the distribution of Federal funds there were 28 with an increase in birth rate. Only two of these 30 States, Arkansas and New Mexico, reported lower birth rates in 1934 than in 1933. Among the 18 States and the District of Columbia, whose taxes exceeded benefits received, were the remaining four States with declines in birth rates, Connecticut, Maryland, New Jersey, and New York, as well as 10 of the 13 States with increases of less than 3 percent in the birth rate. For the first group of 30 States, those receiving a balance of benefit from the Federal government, the rise in birth rate was as much as 5.2 percent while in the second group of 18 States together with the District of Columbia the increase was only 1.7 percent.

While the above evidence is not altogether conclusive, it is at least suggestive, and we shall await with interest future indications as to the true cause of the reversal in trend of the birth rate.

Smallpox in the United States and Canada During 1934

THE steady decline of smallpox in the United States and Canada received further impetus during 1934 when the smallest number of cases ever reported in these countries was registered. Only 5,269 cases of the disease were reported by 44 States, the District of Columbia, and 9 Canadian Provinces as against 6,285 cases in 1933 and 10,902 in 1932.

The unprecedented drop in the number of cases reported by the cities was particularly gratifying. The total registered in 727 cities averaged only slightly more than 1 case per city, or 875 in all. During the preceding year, the number reported by these same cities totaled 2,094 or more than two and a third times as many as in 1934. Steadily but surely, this loathsome disease is being brought under control.

Nevertheless, the continuously improving conditions of the last few years must not blind us to the fact that smallpox is still a menace in some sections of the United States. This is clearly shown by the fact that about 84 percent of the 5,250 cases reported by 44 States, and the District of Columbia, occurred in 14 States, the combined population of which equalled only 21 percent of the entire population of the country. It is discouraging to find that despite the ease with which the disease can be combated, there still are cities like Bremerton, Washington, and Stevens Point, Wisconsin, in which smallpox cases number as many as 400 to 600 per 100,000 inhabitants; and cities like Boise, Idaho; Vincennes, Indiana; Tacoma, Washington; Green Bay, Wisconsin; and Marinette, Wisconsin, which still have case rates of 72 to 114.

In contrast with these, it is refreshing to observe that in the area comprising the States of Maine, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, and the District of Columbia, which contains 30 percent of the country's population, not a single case of smallpox was reported during the year 1934. This is the more remarkable because it is in just this area, with its relatively highly congested population, so conducive to the spread of the disease, that one would expect to find the very highest smallpox incidence in the country. Yet so complete is the control of this disease in these States, through vaccination and revaccination, that it has now become as rare as bubonic plague, cholera or yellow fever.

If this can be achieved in so densely populated an area, why cannot equal success be attained in the more sparsely inhabited States of the Rocky Mountain Division and great grain-growing regions, which are the areas in which the highest smallpox rates now prevail?

If these States were as alive to the menace of smallpox as is the Eastern section of the country it is

Smallpox Cases, Deaths and Case Fatality Rates, for the Years 1932 to 1934, for 44 States, District of Columbia and 9 Canadian Provinces

Area	1934			1933			1932		
	Cases	Deaths	Deaths per 100 Cases	Cases	Deaths	Deaths per 100 Cases	Cases	Deaths	Deaths per 100 Cases
UNITED STATES AND CANADA	5,269	23	.44	6,285	41	.65	10,902	60	.55
United States (44 States and District of Columbia)....	5,250	20	.38	6,185	35	.57	10,567	43	.41
Canada (9 Provinces).....	19	3	15.79	100	6	6.00	335	17	5.07

Smallpox Cases, Deaths, and Case Fatality Rates, for the Years 1932 to 1934, for 640 United States Cities and 87 Canadian Cities

Area	1934			1933			1932		
	Cases	Deaths	Deaths per 100 Cases	Cases	Deaths	Deaths per 100 Cases	Cases	Deaths	Deaths per 100 Cases
UNITED STATES AND CANADIAN CITIES (727).....	875	8	.91	2,094	16	.76	2,819	21	.74
United States Cities (640)..	871	7	.80	2,091	14	.67	2,704	6	.22
Canadian Cities (87).....	4	1	25.00	3	2	66.67	115	15	13.04

Selected States and Canadian Provinces Showing Above-Average Prevalence of Smallpox During the Year 1934

States and Provinces	Number of Cases	Cases per 100,000 Population
Total 14 States	4,395	16
Colorado	154	15
Idaho	149	33
Iowa	166	7
Kansas	113	6
Minnesota	390	15
Missouri	199	5
Nebraska	226	16
Oregon	151	15
South Dakota	178	25
Texas	886	15
Utah	86	17
Washington	580	36
Wisconsin	1,010	34
Wyoming	107	46
Total 4 Provinces	17	1
Alberta	4	1
British Columbia	7	1
Manitoba	2	0.3
Saskatchewan	4	0.4

Cities in the United States Reporting High Prevalence of Smallpox in 1934

Cities	Cases	Cases per 100,000 Population
Pine Bluff, Ark.	7	34
Boise, Idaho	18	84
Vincennes, Ind.	20	114
Mason City, Iowa	6	25
El Paso, Texas	16	15
Houston, Texas	36	11
Ogden, Utah	10	24
Salt Lake City, Utah	26	18
Bremerton, Wash.	59	567
Seattle, Wash.	135	36
Tacoma, Wash.	89	82
Yakima, Wash.	6	27
Green Bay, Wis.	30	75
Marinette, Wis.	10	72
Racine, Wis.	29	42
Stevens Point, Wis.	61	436
Wausau, Wis.	6	24
Cheyenne, Wyo.	3	17

certain that within a very few years there would no longer be a smallpox problem in the United States. Complete eradication of this loathsome disease is attainable only by thoroughgoing vaccination and revaccination; but this is indeed difficult of attainment as long as health authorities continue to encounter organized opposition to their fight to stamp out smallpox by the only means that has been proven to be efficacious. In communities where acceptance of vaccination is not general there can be no real security against smallpox.

Causes of Infant Mortality in Relation to Nationality of Mothers

THAT there has been a decided drop in infant mortality in the United States is generally known. The relative extent to which various racial components of the population have participated in the reduction, and the facts for the principal causes of death of infants of native- and foreign-born mothers, however, are not matters of common knowledge. With this in mind an analysis, summarized in the appended table, has been made of the infant mortality in the expanding Birth Registration Area of Continental United States, having regard to the country of origin of the mother and to the cause of death of the infant.

A number of interesting results emerge. Comparing first of all, the infants of native-born white mothers with those of the foreign-born white, without distinction of nationality, we find that the decline in the mortality between the three-year periods 1921-1923 and 1930-1932 has been 19.1 percent among the former as against 29.9 among the latter, the ratio of the two declines being thus almost exactly two to three. That the foreign-born should record greater progress than the native-born is not in itself surprising, since the drop started from a higher level which afforded greater opportunity for improvement. In fact, in 1921-1923, the mortality among infants of foreign-born white mothers was 83.3 per 1,000 live births as against only 68.5 among those of the native-born white mothers.

From a more detailed consideration of the mortality among infants of the foreign-born mothers, classified according to country of origin, it is seen that the greatest percent reduction is recorded for those of Canadian parentage. Here the improvement is 34.5 percent, namely from a death rate of 88.9 per 1,000 live births to a rate of 58.2. A marked reduction, namely 33.2 percent, is registered also by infants of German mothers. The decrease here is from 71.6 per 1,000 live births to 47.8. Next in order come the infants of Polish mothers, with an improvement of 33.1 percent; in this case the initial death rate (102.6) was, at the beginning of the period considered, the highest recorded for any of the nationalities. Large as has been the

Number of Deaths Under One Year of Age per 1,000 Live Births, from Selected Causes of Death, by Color, and, for the White Population, by Country of Birth of Mother, in the Birth Registration Area in Continental

Number of Deaths Under One Year of Age per 1,000 Live Births, from Selected Causes of Death, by Color, and, for the White Population, by Country of Birth of Mother, in the Birth Registration Area in Continental United States for the Three-Year Periods 1930-1932 and 1921-1923

Cause of Death and Calendar Period	All Deaths	White											Negro
		Total	Country of Birth of Mother										
			United States	Foreign Country									
				Total	Austria-Hungary	Canada	Denmark, Norway, Sweden	England, Scotland, Wales	Ireland	Germany	Italy	Poland	
All Causes:													
1930–1932	61.3	56.6	55.4	58.4	64.5	58.2	48.5	46.4	55.4	47.8	57.3	68.6	92.1
1921–1923	76.3	73.0	68.5	83.3	92.0	88.9	59.2	67.4	78.6	71.6	77.3	102.6	114.1
Principal communicable diseases:													
1930–1932	2.5	2.3	2.2	2.4	2.0	2.3	1.4	1.4	2.2	1.4	3.1	2.5	3.4
1921–1923	3.8	3.6	3.2	4.6	4.8	4.6	2.9	2.9	3.8	3.4	5.4	4.8	6.1
Principal respiratory diseases:													
1930–1932	10.7	9.5	8.9	12.8	15.4	9.6	7.9	7.2	9.2	8.2	15.2	15.6	17.8
1921–1923	12.9	12.1	10.2	17.6	19.7	14.2	9.0	10.2	12.8	12.2	20.0	21.7	22.0
Gastro-intestinal diseases (including dysentery):													
1930–1932	7.2	6.5	6.3	6.8	9.5	5.0	3.3	3.4	5.6	4.2	5.1	9.8	10.7
1921–1923	13.4	13.0	10.9	18.7	24.7	14.8	6.7	10.6	13.4	13.2	15.2	29.7	18.4
Premature birth; congenital debility, icterus, sclerema; congenital malformations:													
1930–1932	23.9	23.6	23.6	21.2	22.6	26.4	22.7	20.4	21.3	20.1	19.1	23.2	26.2
1921–1923	28.3	28.0	28.5	25.3	26.0	37.0	25.8	27.9	26.6	26.8	22.0	27.4	31.9
Injury at birth, other diseases of early infancy:													
1930–1932	6.8	6.9	6.6	8.5	8.1	9.2	8.3	8.8	10.5	8.1	8.3	10.3	5.7
1921–1923	7.0	7.2	6.8	8.0	7.0	9.2	7.0	8.3	12.9	8.0	6.8	9.3	5.8
Syphilis:													
1930–1932	0.8	0.5	0.5	0.4	0.5	0.3	0.2	0.4	0.2	0.2	0.5	0.2	3.3
1921–1923	0.8	0.6	0.6	0.7	0.8	0.5	0.5	0.4	0.6	0.6	0.9	0.5	2.8
Non-respiratory tuberculosis:													
1930–1932	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.2	0.4	0.3	0.4	0.4	0.4
1921–1923	0.6	0.5	0.5	0.7	0.5	0.6	0.6	0.5	0.9	0.5	0.7	0.6	0.7
External causes:													
1930–1932	1.0	0.9	0.8	0.6	0.7	0.7	0.3	0.6	0.6	0.6	0.4	0.6	1.7
1921–1923	1.0	0.9	0.8	0.7	0.8	0.7	0.7	0.7	0.6	0.7	0.5	0.9	1.8
All other causes:													
1930–1932	8.2	6.3	6.3	5.3	5.4	4.4	4.2	4.2	5.3	4.7	5.2	5.9	22.9
1921–1923	8.5	7.1	7.1	6.8	7.6	7.1	6.2	5.9	7.1	6.4	5.8	7.7	24.7

reduction here, the infants of Polish mothers still exhibit the highest mortality of any of the definitely classified white nationalities in the table. A particularly good record is made by the infants of English and Scottish mothers. These started with an infant mortality of 67.4 per thousand live births in 1921-1923, one of the lowest recorded at that time among the national groups here considered. With such a relatively low initial mortality, it is the more creditable to this group that they nevertheless achieved a decrease of 31.2 percent, bringing their rate in 1930-1932 down to the remarkable level of 46.4 per thousand. The Scandinavian countries also began with a very excellent record of only 59.2. They have not progressed, however, quite as well as the English and Scottish, for their infant mortality at the later date is a little higher than that for infants of English and Scottish mothers. Other countries for which the facts are shown in the table are Austria-Hungary, with a decline of 29.9 percent; and Ireland and Italy with decreases of 29.5 percent and 25.9 percent, respectively.

The infants of Negro mothers show a reduction of 19.3 percent, almost identical with that for the native whites. While, thus expressed as a percent, the improvement is on a level with that of the native white, actually it does not represent nearly as good a performance, because the initial figure for the Negroes was extremely high, namely 114.1 per 1,000, and the reduction by 19.3 percent brings this down to 92.1 per 1,000, a figure which is still extremely unsatisfactory.

Particular interest attaches also to the part which the various important causes of death in infancy have had in this improvement. It is not surprising to find that the greatest reduction has been in the death rate from the gastro-intestinal diseases, once the most deadly enemy of infants. Fortunately, very effective means have been found to combat this cause of death. The increasing pasteurization of milk, better control of the fly hazard, and the spread of popular instruction in infant and maternal hygiene are, no doubt, largely responsible for the gains that have been made.

Second in order for improvement achieved are the principal communicable diseases of childhood; and third are the respiratory diseases. Expressed as a percent, the improvement in the mortality from non-respiratory tuberculosis is also very marked, but this is a relatively minor cause of death among infants. The record for the mortality from premature birth, congenital debility and congenital malformations is less favorable. A considerable proportion of deaths in this group may be classed as unavoidable. Nevertheless, there is room here for improvement through the extension and intensification of the campaign for prenatal care of women. The situation with regard to deaths resulting from injury at birth and other diseases of early infancy is somewhat different. Here, it is probable that a

good proportion of the deaths may properly be regarded as avoidable, being due to inadequate or faulty obstetrical procedure.

An analysis such as here presented should serve to indicate where efforts for further improvement can be concentrated to best effect. There is first of all much room for improvement in the general field of causes of death closely related to prenatal conditions and to conditions at and immediately after birth. Taken as a group, the causes in this category are accountable for more than half the total deaths in infancy. Our most promising line of attack will, therefore, be to intensify the campaign for adequate prenatal care and improved service at the time of delivery. Special attention is called for among the foreign-born mothers, for actual *increase* is recorded in infant mortality from injury at birth and other diseases of early infancy where the mother of the child is of Austro-Hungarian, Scandinavian, English, Scottish, German, Italian or Polish origin.

The respiratory diseases are another group of causes against which the progress made cannot be regarded as satisfactory. Something like one-fifth of all infant deaths are due to these causes, and among the Italians, for example, the ratio is as high as one-fourth. That there is opportunity for distinct further improvement is evidenced by the gains of over 32 percent made in the case of children of German and Canadian mothers, as against gains of only 22 and 24 percent, respectively, among those of Austro-Hungarian and Italian mothers, though these started from much higher levels.

While the improvement made in the death rate from gastro-intestinal diseases is most satisfactory, undoubtedly there is still room for further effort in this direction also, especially among certain groups. It will be observed that the death rate from these diseases is almost three times as high among children of Austro-Hungarian and Polish mothers as among those of Scandinavian and British mothers. What one national group has achieved is presumably possible also for the others. Perhaps it may be advantageous in welfare work directed towards reduction of infant mortality, to take into account some of the differences, according to nationality, in the relative proportion of the several causes of death. as revealed by our analysis.

Health Record for July 1935

THE month of July marked the continuance of the record for unprecedentedly low mortality which had been in evidence throughout the preceding six months of 1935, among approximately 17 million Metropolitan Industrial policyholders. Unless, therefore, unfavorable developments come during the remainder of the year, 1935 will record a new minimum mortality rate for this large group of insured

wage-earners and their dependents.

The year bids fair also to establish new low death rates for a number of controllable diseases, notably typhoid fever, diphtheria, tuberculosis, diarrheal complaints and conditions incidental to pregnancy and childbirth. There were fewer deaths from all of the above last year than there had ever been before; and in 1935, up to the end of July, their mortality rates were uniformly below the figures for the corresponding months of 1934. The cumulative death rate for tuberculosis, for example, has dropped 4.5 percent in a single year, and the rates for diarrheal conditions and diseases of the puerperal state have declined 17.9 percent and 5.2 percent, respectively.

The facts for puerperal conditions, both this year and last, are of particular interest. The drop in the puerperal death rate, in 1934, was contemporaneous with a rise in the birth rate. Early indications point to a further slight birth rate increase for 1935. If the rise in the birth rate applies to women in the industrial population as well as in the population at large, this means that the puerperal death rate is declining at the very time when more women are subject to the hazards of childbirth. This is a gratifying development indeed in a country which has the highest maternal mortality rate of any in the civilized world.

Lower death rates are also in evidence this year for the three principal degenerative diseases (heart disease, chronic nephritis and cerebral hemorrhage) and the figures for other important diseases like cancer, diabetes, and pneumonia are at practically last year's levels.

Excepting for a small rise in the homicide death rate there has been improvement, so far this year, in the record for violent deaths. The cumulative rates for suicides and accidents are each down 3 percent and the mortality for automobile fatalities has dropped over 4 percent.

The death rate in the general population of the large cities of the United States during the month of July 1935, was 10.4 per 1,000 estimated population. This may be compared with death rates of 10.9 in June 1935, and 10.8 in July 1934. The diseases which showed increased incidence in July, as compared with June, were poliomyelitis and typhoid fever; those which decreased were diphtheria, influenza, measles, scarlet fever, and smallpox. Comparison with July 1934, shows that the country is experiencing more sickness from influenza, measles, scarlet fever, and smallpox, but that the incidence of diphtheria, poliomyelitis and typhoid fever is lower.

Poliomyelitis cases, as reported from 46 States, numbered 871 in July as compared with 460 in June. This increase was due, for the most part, to outbreaks in the States of New York, Virginia, North Carolina, and California. The epidemic which began in North Carolina has spread to Virginia and there is evidence that it has extended to Tennessee where 28 cases were reported in July as against 2 in June.

The following table shows the mortality among Industrial policyholders for July 1935; June 1935, and July 1934, together with the cumulative rates for the first seven months of each year.

METROPOLITAN LIFE INSURANCE COMPANY

Death Rates per 100,000 for Principal Causes. Weekly Premium-Paying Business in Industrial Department. All Ages (Annual Basis).*

MONTHS OF JULY 1935; JUNE 1935, AND JULY 1934.

CAUSES OF DEATH	ANNUAL RATE PER 100,000 LIVES EXPOSED*				
	July 1935	June 1935	July 1934	Cumulative January-July 1935	Cumulative January-July 1934
TOTAL—ALL CAUSES	779.2	806.3	781.3	890.5	901.4
Typhoid fever	1.4	.8	2.2	.7	1.1
Measles	2.2	4.9	1.6	3.8	4.2
Scarlet fever	2.2	3.3	1.7	3.5	3.1
Whooping cough	3.1	1.6	3.1	3.1	4.0
Diphtheria	1.4	.7	1.4	1.9	2.0
Influenza	3.1	6.4	3.1	19.9	14.2
Tuberculosis (all forms)	57.8	55.2	59.5	59.6	62.4
Tuberculosis of respiratory system	50.6	49.7	51.3	53.5	54.9
Syphilis, locomotor ataxia and general paralysis of the insane	10.2	12.2	11.4	11.6	12.5
Cancer (all forms)	93.8	94.9	94.4	96.0	95.5
Diabetes mellitus	20.7	24.0	21.5	25.9	25.8
Cerebral hemorrhage; apoplexy	56.6	55.9	59.2	63.9	67.0
Diseases of heart†	140.5	147.0	145.2	168.7	174.9
Diseases of the coronary arteries and angina pectoris	29.7	27.3	25.8	33.0	30.3
Pneumonia (all forms)	37.6	56.3	34.4	82.5	81.5
Diarrhea and enteritis	9.3	7.3	13.5	6.9	8.4
Appendicitis	10.0	11.9	13.7	11.5	12.8
Chronic nephritis (Bright's disease)	56.8	56.8	59.5	63.8	68.7
Puerperal state—Total	7.8	7.9	9.1	9.1	9.6
Suicides	10.3	10.1	9.1	9.4	9.7
Homicides	6.2	5.6	4.8	5.7	5.5
Accidents—Total	61.7	53.9	67.0	53.7	55.3
Automobile accidents	19.1	17.6	21.9	18.5	19.3
All other diseases and conditions	156.8	162.0	139.9	156.4	152.9

*The rates for 1935 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

†Excludes pericarditis, acute endocarditis and acute myocarditis.

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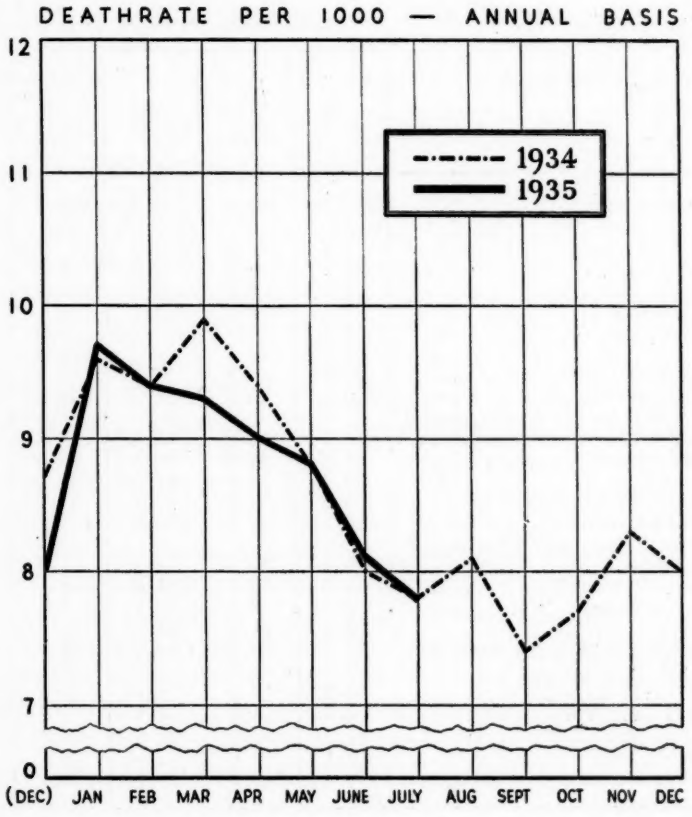
DEATHRATES FROM ALL CAUSES

METROPOLITAN LIFE INSURANCE CO – INDUSTRIAL DEPT.
WEEKLY PREMIUM PAYING BUSINESS – TOTAL PERSONS



1934	9.6	9.4	9.9	9.4	8.8	8.0	7.8	8.1	7.4	7.7	8.3	8.0
1935*	9.7	9.4	9.3	9.0	8.8	8.1	7.8					

** Rates for 1935 are provisional*

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